

# Vibration Monitoring and Machine Protection Systems

1010 East Main Street, League City, TX 77573 Phone:281.334.0766 Fax: 281.334.4255 www.stiweb.com / www.stiwebstore.com

# CMCP420VT Series **Loop Powered Transmitters**

#### **Features**

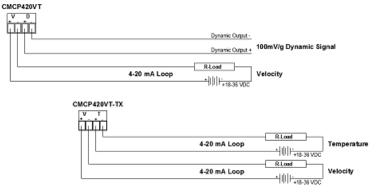
- **Solid State Reliability**
- **Integral Sensor**
- 4-20 mA Output
- **Dual Parameter Vibration and Temperature** (CMCP420VT-T Model)
- UL and CSA Approved Class 1, Div 2, Group B-D
- **CE Approved**
- **RoHS Compliant**
- **Dynamic Signal Output (CMCP420VT Model)**

# Description

The CMCP420VT Series Sensors are solid state, loop powered sensors which are available with a Vibration Velocity output (VT) or Vibration Velocity and Temperature outputs (VT-T). Both versions provide 4-20mA outputs which are proportional to the overall vibration and temperature level. Both Loop Powered Sensors continuously monitor machinery health and transmit directly into a PLC or DCS for Trending, Alarm and Machine Shutdown. The CMCP420VT Series are rated for installation in Class I, Division II, Groups B,C and D areas. The sensor may also be installed in Class I Division I areas when used with the CMCP420-XPHD Explosion Proof Conduit Fitting.

#### Simple Installation

Simply mount one of the CMCP420VT Series Sensors into a tapped hole in the bearing housing or machine case, connect two wires into a 4-20 mA loop, and you are ready to interface with a PLC or DCS. Electrical conduit may be connected directly to the top 3/4"" NPT fitting. The CMCP420VT has a 1/4"-28 UNF tapped hole and has a variety of adaptors available.



#### **Ordering Information:**

# Vibration Velocity / Dynamic Output Only:

0-1 in/sec (0-25.4 mm/sec) RMS CMCP420VT -01 -02 0-2 in/sec (0-50.8 mm/sec) RMS

# **Vibration Velocity and Temperature Output:**

0-1.0 in/sec and 0-100 Degrees CMCP420VT-T -01

0-2.0 in/sec and 0-100 Degrees









**CMCP420VT Shown with CMCP420LED Display** 

# **Specifications:**

#### Electrical:

Power (Two wire loop power): + 22 to + 36 Vdc Maximum Load: 600 Ohms resistive Grounding: Case Isolated

#### **Environmental:**

Operating Temperature: -20° C to +80° C Sealed: Epoxy Encapsulated Enclosure: SS. NEMA 4, 4X, 12 Mounting: Stud Mounted 1/4x28 UNF Weight: 8 oz. (without display)

#### Classifications:

UL and CSA Approved Class 1, Division 2, Group B-D CE Approved, RoHS Compliant

#### Dynamic:

CMCP420VT Vibration Output

Vibration: 4-20mA proportional to full scale velocity

Frequency Response: 2 to 2,000 Hz

Accuracy: 5%

Dynamic Output: 100mV/g

CMCP420VT-T Vibration and Temperature Output Vibration: 4-20mA proportional to full scale velocity Frequency Response: 2 to 2,000 Hz Temperature: 0-100 Degrees Celsius Accuracy: 5%



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# CMCP420VT Series Transmitter Accessories

# CMCP420-LED/LCD - Retrofit Display

Displays actual vibration levels in velocity on an easy to read bright red LED or standard black LCD display. Includes a BNC connector that provides access to the raw acceleration signal. This is useful for connection to portable data collectors



# CMCP420-BNC - BNC Adapter Retrofit

90 Degree 3/4" NPT conduit elbow with a BNC connector to access the raw acceleration signal. This is useful for connection to portable data collectors



# CMCP420-EL - 90 Degree 3/4" by 3/4" NPT Elbow

Useful for connecting CMCP420VT to hard or flexible conduit. When used with the CMCP420-WF, provides a simple weatherproof exit for the instrument wire.



# CMCP420-WF - 3/4" NPT Weatherproof Cable Fitting

When used with the CMCP420-EL, provides a simple weatherproof exit for the instrument wire.



# CMCP420-XPHD—Class 1 Division 1 Conduit Head

Allows installation of the CMCP420VT Series in Class I Division I Environments.



#### **Ordering Information:**

CMCP420	-XXXX -EL -WF -BNC -XPHD		Description: 90 Deg. Elbow Weatherproof Cable Fitting BNC Adapter Class I Division I Conduit Head
CMCP420	-XXX -LED -LCD	-XX	Description:
		-01 -02 -03	0-1.00 In/Sec RMS 0-2.00 In/Sec RMS 0-25.4 mm/Sec RMS
		-04 -05 -06	0-50.8 mm/Sec RMS 0-100 Deg. C (CMCP420VT-T Series Only) -32 to 212 Deg. F (CMCP420VT-T Series Only)